

REMARKS

Status of the Application

As per the Office Action mailed October 3, 2003, Claims 1-12 are pending in the application. More specifically, Claims 1-7 and 11-12 stand as provisionally rejected under the judicially created doctrine of obviousness-type double patenting; Claims 1, 3-5 and 7-12 as well as Claims 2 and 6 stand as rejected under 35 U.S.C. §103(a).

In this Response, Applicants have amended Claim 1 only to provide clarity and further define the present invention, and not for reasons of patentability and/or further limitation of the invention.

Provisional Obviousness-Type Double Patenting Rejection

Claims 1-7 and 11-12 stand as provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of co-pending Application No.: 09/921,815. The Examiner asserts that although the conflicting claims are not identical, they are not patentably distinct from each other because the ultraviolet curing of the co-pending application provides some degree of heat, as required by the curing step of the instant claims.

Applicants have submitted a terminal disclaimer herewith with respect to U.S. Patent Application 09/921,815. The present application and U.S. Patent Application 09/921,815 are commonly owned by E.I. du Pont de Nemours and Company. Therefore, Applicants respectfully request that the Examiner withdraw the provisional rejection.

Rejection Under 35 U.S.C. §103

Claims 1, 3-5 and 7-12 stand as rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,891,292 (Goodman et al.) in view of U.S. Patent 6,221,439 B1 (Negele et al.). The Examiner asserts that it would have been obvious to one of ordinary skill in the art to use the teachings of Negele et al. in the method of Goodman et al. with the expectation of the successful results since thermal and/or IR sources are suitable for radiation curing.

Applicants respond that Goodman et al. do not describe, and in fact, teach away from the process according to the present invention.

Goodman et al. teach different processes, their use being dependent upon the presence of a polymer network or a fiber-reinforced polymer network. When using the polymer network, Goodman et al. only describe a process where the polymer network is sprayed onto a surface and the coated surface is subsequently cured with radiation (see Column 6, lines 43-48 and lines 51-53), which teaches away from the process of the present invention where a coating layer carried on a backing film is applied to a surface. Goodman et al. do not teach or suggest the application of only the polymer network using any other method, particularly not one resembling the present invention.

Alternatively, Goodman et al. teach a method that requires the use of a fiber-reinforced polymer network (see the *Pre-preg Method* in Column 9, line 33 through Column 10, line 25). The Examiner asserts that this method of Goodman et al. renders the process of the present invention as obvious because it includes a removable peel-ply backing in a partially cured, "tacky" state. Applicants disagree with the Examiner's assertion because, in contrast to the teachings and suggestions of Goodman et al., the process of the present invention describes (a) a backing film; and (b) this backing film being coated on one side with a coating composition for repairing the substrate surface (see original and currently amended Claim 1). Additionally, a protective film may be further added to one or both sides of the backing film. The backing film in the present invention is coated with only the coating composition, such that, the fiber-reinforced polymer network taught by Goodman et al. is not required or even desired. Currently amended Claim 1 requires that the transferred layer comprises a coating composition, without the inclusion of any fabric or cloth. Goodman et al. do not teach or suggest that its pre-preg method may be used in the repair of a coating using only a polymer network, but instead teach and suggest only its use in repairing composite parts with fiber-reinforced polymer networks.

Additionally, Goodman et al. teach the use of a coating that is "thermosetting," however this term is in reference only to UV radiation or electron beam radiation for curing the applied coating, for example, as shown in column 6, lines 58-65; column 7, lines; and Example 1. In fact, the Examiner acknowledges that Goodman et al. do not specifically teach the use of thermal energy. Applicants believe that Goodman et

al. not only fail to specifically teach the use of thermal energy, but teach away from the present invention because the present application specifically indicates on page 3, lines 5-6 that the term "thermal energy" as used therein excludes the use of UV radiation and electron beam radiation. The Examiner then presents Negele et al. as evidence that infrared and thermal sources are members of the group of "radiation" suitable for curing repair coatings (column 3, line 36). However, Negele et al. and the present invention utilize different energy sources in their processes. More particularly, in Negele et al. partial curing may be performed using either thermal energy or high energy radiation (e.g. UV radiation) and full curing is performed using only UV radiation. In contrast, the present invention, which may be performed in two separate steps (see page 12, lines 26-33) the partial curing and full curing is performed using only thermal energy without radiating with UV radiation. The aspect of the present invention is neither taught nor suggested by the combination of Goodman et al. and Negele et al.

Furthermore, Applicants' invention is directed to a process for repairing coated substrate surfaces, in other words, repair of the coating itself. As stated above, Goodman et al. only teach or suggest a spray application its polymer network and not the process of the present invention. The alternative pre-preg method of Goodman et al. describes the use of pre-preg patches for the repair of composite parts such as aircraft structures and not the repair of the coating of a coated surface. In fact, Goodman et al. explicitly state that its patches are to be used in covering holes, and providing reinforcement in aircraft bodies, wings and fuselage sections. Goodman et al. do not teach or suggest that its patch use method can be used with only the polymer network, and in fact, teach away of the use of only the polymer network in a patch-like arrangement by stating a separate spray method for the polymer network.

Since Goodman et al. teach away from, and provide no guidance or incentive to result in the present invention of currently amended Claim 1, one skilled in the art would not combine Goodman et al. with Negele et al. Accordingly, Applicants also believe the Examiner's further assertions with respect to Claims 3-5 and 7-12 have been rendered moot, and therefore, Applicants respectfully request the Examiner to withdraw this rejection.

Claims 2 and 6 stand as rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,891,292 (Goodman et al.) in view of U.S. Patent 6,221,439 B1 (Negele et al.) as applied to claims 1, 3-5, and 7-12, and further in view of U.S. Patent 5,166,007 (Smith et al.).

In addition to the arguments presented above, Applicants note that Claims 2 and 6 depend from Claim 1 and are therefore believed to be patentable as they currently stand.

With respect to curing, Smith et al., in accordance with Goodman et al. and Negele et al., requires the use of UV radiation and does not teach or suggest otherwise. Therefore, as noted above, one skilled in the art would not find any guidance or incentive of the combination of these references to result in the present invention.

Furthermore, the Examiner acknowledges that Goodman et al. in view of Negele et al. fail to teach supplying the heat through the backing film or supplying a backing film with a protective film thereon; and that Goodman et al. do not specify when the "removable peel-ply" backing is removed. Thus, the Examiner has cited Smith et al.

However, Applicants further respond that Smith et al. also fail to teach or suggest a method utilizing a backing film coated on one side with only an uncured or partially cured coating layer of a coating composition. Smith et al. require the use of impregnated fabrics layered on the backing film rather than having only the coating composition on the backing film, as in the present invention, thereby making Smith et al. similar to Goodman et al. but very different from the present invention.

In contrast to the teachings and suggestions of Smith et al., the backing film in the present invention is coated with only the coating composition (although the backing film may also have a protective layer on one or both sides), such that, the impregnated fabric layers taught by Smith et al. are not required or even desired. This is further evidenced in currently amended Claim 1 by requiring that the transferred layer is only the coating composition.

Therefore, while the Examiner has cited Smith et al. for the purposes stated above, Smith et al. actually teach away from the present invention. Since Smith et al. teach away from, and provide no guidance or incentive to result in the present invention of currently amended Claim 1, one skilled in the art would not combine

Smith et al. with Goodman et al. and Negele et al. Accordingly, Applicants respectfully request the Examiner to withdraw this rejection.

SUMMARY

In view of the foregoing amendments and remarks, Applicants believe the stated grounds of rejection have been properly traversed, accommodated, or rendered moot and that a complete response has been made to the Non-Final Office Action mailed October 3, 2003. Applicants believe that the application stands in condition for allowance with withdrawal of all grounds of rejection. A Notice of Allowance is respectfully solicited. If the Examiner has questions regarding the application or the contents of this response, the Examiner is invited to contact the undersigned at the number provided below.

The Applicants believe that a fee for a one-month extension of time of the period for reply, Supplemental IDS and Terminal Disclaimer is due in accordance with this response, however should any other fee be due that is unaccounted for, please charge such fee to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company). Furthermore, if any extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. §1.136(a), and any fees required therefore are hereby authorized to be charged to our Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,

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